

WHAT IS CLAIMED:

1. A method of determining therapeutic strategies and/or targets for examining weight loss in an individual, comprising administering to the individual a prolonged overfeeding regimen and identifying gene and/or protein expression that occur in the individual with the prolonged overfeeding regimen.
2. A method according to claim 1, wherein the individual receives calories directly into the stomach during administration of the prolonged overfeeding regimen.
3. A method according to claim 2, wherein the prolonged overfeeding regimen is administered through a gastric catheter.
4. A method according to claim 1, wherein the gene and/or protein expression is identified during or after the prolonged overfeeding regimen.
5. A method according to claim 4, wherein a referenced gene and/or protein expression is identified before the prolonged overfeeding regimen.
6. A method according to claim 1, wherein the gene and/or protein expression is identified in a tissue sample.
7. A method according to claim 6, wherein the tissue sample comprises brain tissue, stomach tissue, intestine tissue, white fat tissue, brown fat tissue, muscle tissue, pancreas tissue, pituitary tissue, liver tissue, bone tissue or combinations thereof.

8. A method according to claim 7, wherein the brain tissue comprises hypothalamus tissue, brainstem tissue, midbrain tissue, forebrain tissue or combinations thereof.

9. A method according to claim 1, wherein identifying gene and/or protein expression that occur in an individual with the prolonged overfeeding regimen comprises:

- a. collecting a tissue sample from the individual;
- 5 b. isolating RNA, DNA, or protein or combinations thereof from the tissue;
- c. determining a level of expression of the isolated RNA, DNA, protein or combinations thereof;
- d. analyzing the level of expression; and
- 10 e. defining a target based on the analysis of the level of expression.

10. A method according to claim 9, wherein determining the level of expression comprises:

- a. preparing a probe using the isolated RNA, DNA, protein or combinations thereof,
- 5 b. applying the probe to an array, and
- c. measuring the level of the RNA, DNA, protein, or combinations thereof, of the array.

11. A method according to claim 9, wherein analyzing the level of expression comprises performing bioinformatic analysis.

12. A method according to claim 11, wherein bioinformatic analysis comprises statistical analysis, class prediction, clustering, computer programs, or combinations thereof.

13. A method of determining therapeutic strategies and/or targets for wasting disorders in an individual, comprising administering to the individual a prolonged overfeeding regimen and identifying gene and/or protein expression that occur in the individual with the prolonged overfeeding regimen.